## **Listing of Claims:**

(Currently Amended) A method of reducing the risk eliminating the onset of
 Type 1 diabetes in a predisposed human patient by up to 90 percent, comprising the steps of: identifying a human patient predisposed to Type 1 diabetes patient, wherein Type 1 diabetes is detectable in a patient with autoantibodies to β cell antigens; and

orally administering to the patient an effective amount of a  $1\alpha$ -hydroxy vitamin D compound such that the <u>risk of</u> onset of Type 1 diabetes or <u>Type 1</u> diabetes symptoms is reduced eliminated.

- 2. (Original) The method of claim 1 wherein the compound is selected from the group consisting of  $1\alpha$ ,25-dihydroxyvitamin D<sub>3</sub> (1,25-(OH)<sub>2</sub>D<sub>3</sub>), 19-nor-1,25-dihydroxyvitamin D<sub>2</sub> (19-nor-1,25-(OH)<sub>2</sub>D<sub>3</sub>), 24-homo-22-dehydro-22E-1 $\alpha$ ,25-dihydroxyvitamin D<sub>3</sub> (24-homo-22-dehydro-22E-1,25-(OH)<sub>2</sub>D<sub>3</sub>), 1,25-dihydroxy-24(E)-dehydro-24-homo-vitamin D<sub>3</sub> (1,25-(OH)<sub>2</sub>-24-homo D<sub>3</sub>), 19-nor-1,25-dihydroxy-21-epi-vitamin D<sub>3</sub> (19-nor-1,25-(OH)<sub>2</sub>-21-epi-D<sub>3</sub>),  $1\alpha$  hydroxy vitamin D<sub>3</sub> or  $1\alpha$  hydroxy vitamin D<sub>2</sub>.
- 3. (Previously Amended) The method of claim 1 wherein the vitamin D compound is selected from the group consisting of vitamin D compounds with the following formula:

wherein  $X^1$  and  $X^2$  are each selected from the group consisting of hydrogen and acyl; wherein  $Y^1$  and  $Y^2$  are each selected from the group consisting of H, 0-aryl, 0-alkyl, aryl, and alkyl of 1-4 carbons, taken together to form an alkene having the

where  $B_1$  and  $B_2$  are selected from the group consisting of H, alkyl of 1-4 carbons and aryl, and can have a  $\beta$  or  $\alpha$  configuration;  $Z^1=Z^2=H$  or  $Z^1$  and  $Z^2$  together are  $=CH_2$ ; and wherein R is an alkyl, hydroxyalkyl or fluoroalkyl group, or R represents the following side chain:

$$R^{8}$$
 $R^{7}$ 
 $R^{4}$ 
 $R^{5}$ 
 $R^{5}$ 
 $R^{21}$ 
 $R^{6}$ 
 $R^{3}$ 
 $R^{1}$ 

wherein (a) may have an S or R configuration, R<sup>1</sup> represents hydrogen, hydroxy or O-acyl, R<sup>2</sup> and R<sup>3</sup> are each selected from the group consisting of alkyl, hydroxyalkyl and fluoralkyl, or, when taken together represent the group-(CH<sub>2</sub>)<sub>m</sub>-wherein m is an integer having a value of from 2 to 5, R<sup>4</sup> is selected from the group consisting of hydrogen, hydroxy, fluorine, O-acyl, alkyl, hydroxyalkyl and fluoralkyl, wherein if R<sup>5</sup> is hydroxyl or fluoro, R<sup>4</sup> must be hydrogen or alkyl, R<sup>5</sup> is selected from the group consisting of hydrogen, hydroxy, fluorine, alkyl, hydroxyalkyl and fluoroalkyl, or R<sup>4</sup> and R<sup>5</sup> taken together represent double-bonded oxygen, R<sup>6</sup> and R<sup>7</sup> taken together form a carbon-carbon double bond, R<sup>8</sup> may be H or CH<sub>3</sub>, and

wherein n is an integer having a value of from 1 to 5, and wherein the carbon at any one of positions 20, 22, or 23 in the side chain may be replaced by an O, S, or N atom.

- 4. (Original) The method of claim 1 wherein the oral administration is via diet.
- 5. (Original) The method of claim 1 wherein the oral administration is at the concentration of between 0.005  $\mu$ g to 0.2  $\mu$ g per kilogram of patient weight per day.

Claims 6 – 10 (Cancelled)

11. (New) A method of reducing the risk of Type 1 diabetes in a predisposed human patient by up to 90 percent, comprising the steps of:

identifying a human patient predisposed to Type 1 diabetes, wherein Type 1 diabetes is detectable in a patient with autoantibodies to glutamic acid decarboxylase; and

orally administering to the patient an effective amount of a  $1\alpha$ -hydroxy vitamin D compound such that the risk of onset of Type 1 diabetes or diabetes symptoms is reduced.

12. (New) The method of claim 11 wherein the compound is selected from the group consisting of 1α,25-dihydroxyvitamin D<sub>3</sub> (1,25-(OH)<sub>2</sub>D<sub>3</sub>), 19-nor-1,25-dihydroxyvitamin D<sub>2</sub> (19-nor-1,25-(OH)<sub>2</sub>D<sub>3</sub>), 24-homo-22-dehydro-22E-1α,25-dihydroxyvitamin D<sub>3</sub> (24-homo-22-dehydro-22E-1,25-(OH)<sub>2</sub>D<sub>3</sub>), 1,25-dihydroxy-24(E)-dehydro-24-homo-vitamin D<sub>3</sub> (1,25-(OH)<sub>2</sub>-24-homo D<sub>3</sub>), 19-nor-1,25-dihydroxy-21-epi-vitamin D<sub>3</sub> (19-nor-1,25-(OH)<sub>2</sub>-21-epi-D<sub>3</sub>), 1α hydroxy vitamin D<sub>3</sub> or 1α hydroxy vitamin D<sub>2</sub>.

13. (New) The method of claim 11 wherein the vitamin D compound is selected from the group consisting of vitamin D compounds with the following formula:

$$X^{2O}$$
 $Y^{1}$ 
 $Y^{2}$ 
 $Y^{2}$ 
 $Y^{2}$ 
 $Y^{2}$ 

wherein  $X^1$  and  $X^2$  are each selected from the group consisting of hydrogen and acyl; wherein  $Y^1$  and  $Y^2$  are each selected from the group consisting of H, 0-aryl, 0-alkyl, aryl, and alkyl of 1-4 carbons, taken together to form an alkene having the

where  $B_1$  and  $B_2$  are selected from the group consisting of H, alkyl of 1-4 carbons and aryl, and can have a  $\beta$  or  $\alpha$  configuration;  $Z^1=Z^2=H$  or  $Z^1$  and  $Z^2$  together are  $=CH_2$ ; and wherein R is an alkyl, hydroxyalkyl or fluoroalkyl group, or R represents the following side chain:

$$R^{8} \xrightarrow{21^{18}} R^{7} R^{4} \xrightarrow{R^{5}} R^{5}$$

$$R^{6} \qquad R^{3} R^{1}$$

wherein (a) may have an S or R configuration,  $R^1$  represents hydrogen, hydroxy or O-acyl,  $R^2$  and  $R^3$  are each selected from the group consisting of alkyl, hydroxyalkyl and fluoralkyl, or, when taken together represent the group- $(CH_2)_m$ -wherein m is an integer having a value of

from 2 to 5, R<sup>4</sup> is selected from the group consisting of hydrogen, hydroxy, fluorine, O-acyl, alkyl, hydroxyalkyl and fluoralkyl, wherein if R<sup>5</sup> is hydroxyl or fluoro, R<sup>4</sup> must be hydrogen or alkyl, R<sup>5</sup> is selected from the group consisting of hydrogen, hydroxy, fluorine, alkyl, hydroxyalkyl and fluoroalkyl, or R<sup>4</sup> and R<sup>5</sup> taken together represent double-bonded oxygen, R<sup>6</sup> and R<sup>7</sup> taken together form a carbon-carbon double bond, R<sup>8</sup> may be H or CH<sub>3</sub>, and wherein n is an integer having a value of from 1 to 5, and wherein the carbon at any one of positions 20, 22, or 23 in the side chain may be replaced by an O, S, or N atom.

- 14. (New) The method of claim 11 wherein the oral administration is via diet.
- 15. (New) The method of claim 11 wherein the oral administration is at the concentration of between 0.005  $\mu$ g to 0.2  $\mu$ g per kilogram of patient weight per day.